Title (en)

Unmanned diagnostic communications system for computer controlled machine tools.

Title (de)

Unbemanntes diagnostisches Kommunikationssystem für computergesteuerte Werkzeugmaschinen.

Title (fr)

Système sans équipage de diagnostique par communication pour machines-outils commandées par ordinateur.

Publication

**EP 0051861 A2 19820519 (EN)**

Application

**EP 81109531 A 19811105**

Priority

US 20510280 A 19801110

Abstract (en)

An unmanned diagnostic communications system for analyzing the operation of a remotely situated computer controlled machine tool and for diagnosing any abnormalities disclosed during machine tool operation includes an auto dialer and MODEM coupled between the computer controlled machine tool and one end of a communications channel and an auto answer MODEM coupled between the other end of the communications channel and a diagnostic computer. In response to a test command entered by an operator to the remotely situated computer controlled machine tool, the auto dialer automatically establishes a communications link with the diagnostic computer through the auto answer MODEM. Thereafter, the diagnostic computer determines the identity of the remotely situated computer controlled machine and then transmits instructions to the computer controlled machine tool to direct its operation. In accordance with the program instructions from the diagnostic computer, the computer controlled machine tool transmits data indicative of machine tool operating characteristics to the diagnosing computer which is then analyzed by such data to detect and diagnose any machine tool abnormalities.

IPC 1-7

**G05B 19/417**

IPC 8 full level

**G05B 19/18** (2006.01); **G05B 19/4063** (2006.01); **G05B 19/418** (2006.01); **G05B 23/02** (2006.01)

CPC (source: EP)

**G05B 19/4063** (2013.01); **G05B 19/4181** (2013.01); G05B 2219/33182 (2013.01); G05B 2219/33284 (2013.01); Y02P 90/02 (2015.11)

Cited by

EP0182382A3; EP0845724A4; FR2682784A1; EP0133823A1; CN100429595C; EP0982230A1; GB2222704A; GB2222704B; CN100346244C; EP0822473A3; EP1416400A3; DE10152765B4; EP0473174A1; US5410469A; FR2591000A1; EP0232636A1; US4847894A; US6975913B2; US7603289B2; US7463945B2; US7292900B2; WO03007092A3; WO03007097A1; WO8703975A1; US7127322B2; US6954680B2; US7395122B2; US6385497B1; US6892109B2; US6963786B2; US7062343B2; US7805279B2; US7567853B2

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